

CLAIMS

1. A displacement control signal correction method for correcting a displacement control signal output based upon predetermined reference characteristics of a displacement  
5 altering means, comprising:

calculating a displacement control pressure corresponding to a reference displacement based upon the reference characteristics and determining correction pressure characteristics based upon a difference between the  
10 displacement control pressure and a corresponding measured pressure; and

calculating a correction pressure corresponding to a target displacement based upon the correction pressure characteristics and correcting the displacement control  
15 signal in correspondence to the correction pressure.

2. A displacement control signal correction method for correcting a displacement control signal output based upon predetermined reference characteristics of a displacement  
20 altering means, comprising:

calculating a displacement control pressure corresponding to a target displacement based upon the reference characteristics and correcting the displacement control signal through feedback control so as to reduce a

difference between the displacement control pressure and a corresponding measured pressure.

3. A displacement control signal correction method for  
5 correcting a displacement control signal output based upon predetermined reference characteristics of a displacement altering means, comprising:

setting in advance a reference displacement control signal and a reference displacement control pressure  
10 corresponding to a reference displacement based upon the reference characteristics, ascertaining a relationship between a predetermined displacement control signal and a pressure measured when the displacement control signal is output, calculating a displacement control signal needed to generate the reference displacement control pressure based upon the relationship having been ascertained, and calculating a difference between the displacement control signal and the reference displacement control signal; and  
15 correcting a displacement control signal output in correspondence to a target displacement based upon the difference having been calculated.

4. A displacement control device, comprising:

a displacement altering means for generating a displacement control pressure corresponding to a displacement control signal;

- an input means for inputting a target displacement;  
5 a pressure calculating means for calculating a displacement control pressure corresponding to the target displacement based upon predetermined reference characteristics of the displacement altering means;
- 10 a pressure detecting means for detecting a pressure corresponding to the displacement control pressure; and

15 a correcting means for correcting a displacement control signal corresponding to the target displacement input through the input means based upon the displacement control pressure having been calculated by the pressure calculating means and the measured pressure detected by the pressure detecting means.

5. A displacement control device according to claim 4, wherein:

- 20 the correcting means corrects the displacement control signal based upon the displacement control pressure having been calculated by the pressure calculating means, a first measured pressure corresponding to a minimum displacement, which is detected while increasing the displacement, and a second measured pressure corresponding to a maximum

displacement, which is detected while decreasing the displacement.

6. A displacement control device according to claim 4 or  
5 claim 5, wherein

the correcting means includes:

a pressure characteristics setting means for setting correction pressure characteristics corresponding to the target displacement based upon a difference between the displacement control pressure having been calculated by the pressure calculating means and the measured pressure detected by the pressure detecting means; and

a correction pressure calculating means for calculating a correction pressure corresponding to the target displacement input through the input means based upon the correction pressure characteristics, and wherein

the correcting means corrects the displacement control signal so as to adjust an actual displacement to the target displacement in correspondence to the correction pressure having been calculated.

7. A displacement control device according to claim 4,  
wherein:

the correcting means corrects the displacement control signal through feedback control so as to decrease a

difference between the displacement control pressure having been calculated by the pressure calculating means and the measured pressure detected by the pressure detecting means.

- 5 8. A displacement control device, comprising:
  - a displacement altering means for generating a displacement control pressure corresponding to a displacement control signal;
  - an input means for inputting a target displacement;
  - 10 a pressure detecting means for detecting a pressure corresponding to the displacement control pressure;
  - a signal output means for outputting a displacement control signal corresponding to the target displacement to the displacement altering means based upon predetermined reference characteristics of the displacement altering means;
  - 15 a setting means for setting a reference displacement control signal and a reference displacement control pressure corresponding to a reference displacement, based upon the reference characteristics; and
  - 20 a correcting means for calculating a displacement control signal needed to generate the reference displacement control pressure based upon a measured pressure detected by the pressure detecting means when the displacement control signal is output by the signal output means, calculating a

difference between the displacement control signal and the reference displacement control signal and correcting the displacement control signal output to the displacement altering means based upon the difference having been  
5 calculated.

9. A displacement control device according to claim 8, wherein:

the correcting means calculates a displacement control  
10 signal needed to generate the reference displacement control pressure based upon a first measured pressure corresponding to a minimum displacement, which is detected by the pressure detecting means while increasing the displacement, and a second measured pressure corresponding to a maximum  
15 displacement, which is detected while decreasing the displacement.

10. A displacement control device according to any of claims 4 through 9, further comprising:

20 a filtering means for filtering a detection value provided by the pressure detecting means so as to eliminate a vibration component from the measured pressure.

11. A construction machine equipped with a displacement  
25 control device according to any of claims 4 through 10.

12. A program that enables a computer to execute processing for correcting a displacement control signal output based upon predetermined reference characteristics of a  
5 displacement altering means, comprising:

processing for calculating a displacement control pressure corresponding to a reference displacement based upon the reference characteristics and determining correction pressure characteristics based upon a difference  
10 between the displacement control pressure and a corresponding measured pressure; and

15 processing for calculating a correction pressure corresponding to a target displacement based upon the correction pressure characteristics and correcting the displacement control signal in correspondence to the correction pressure.

13. A program that enables a computer to execute processing for correcting a displacement control signal output based upon predetermined reference characteristics of a  
20 displacement altering means, comprising:

processing for calculating a displacement control pressure corresponding to a target displacement based upon the reference characteristics and correcting the  
25 displacement control signal through feedback control so as

to reduce a difference between the displacement control pressure and a corresponding measured pressure.

14. A program that enables a computer to execute processing  
5 for correcting a displacement control signal output based upon predetermined reference characteristics of a displacement altering means, comprising:

processing for setting in advance a reference displacement control signal and a reference displacement control pressure corresponding to a reference displacement based upon the reference characteristics, ascertaining a relationship between a predetermined displacement control signal and a pressure measured when the displacement control signal is output, calculating a displacement control signal needed to generate the reference displacement control pressure based upon the relationship having been ascertained and calculating a difference between the displacement control signal and the reference displacement control signal; and

20 processing for correcting a displacement control signal output in correspondence to a target displacement based upon the difference having been calculated.